

Notulae to the Italian alien vascular flora: 4

Gabriele Galasso¹, Gianniantonio Domina², Gianmaria Bonari³, Sergio Buono⁴,
Giuseppina Chianese⁵, Gloria Cortesi⁶, Giuliano Frangini⁶, Duilio Iamónico⁷,
Nicola Olivieri⁸, Lorenzo Peruzzi⁹, Brunello Pierini¹⁰, Francesco Roma-Marzio⁹,
Anna Scoppola¹¹, Adriano Soldano¹², Adriano Stinca¹³, Valeria Tomaselli¹⁴,
Giuseppe Veronico¹⁴, Chiara Nepi¹⁵

1 Sezione di Botanica, Museo di Storia Naturale di Milano, Corso Venezia 55, 20121 Milano, Italy **2** Dipartimento di Scienze Agrarie, Alimentari e Forestali, Università di Palermo, Viale delle Scienze, ed. 5, 90128 Palermo, Italy **3** Dipartimento di Scienze della Vita, Università di Siena, Via P.A. Mattioli 4, 53100 Siena, Italy **4** Via XXV Aprile 6, 01010 Oriolo Romano (Viterbo), Italy **5** Musei delle Scienze Agrarie, Università di Napoli Federico II, Via Università 100, 80055 Portici (Napoli), Italy **6** Via A. Moro 7, 57037 Portoferraio (Livorno), Italy **7** Dipartimento di Pianificazione, Design, Tecnologia dell'Architettura (PDITA), Sapienza Università di Roma, Via Flaminia 72, 00196 Roma, Italy **8** Via Maestri del Lavoro 40, 64100 Teramo, Italy **9** Dipartimento di Biologia, Università di Pisa, Via Derna 1, 56126 Pisa, Italy **10** Via L.L. Zamenhof 2, 56127 Pisa, Italy **11** Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università della Tuscia, Via San Camillo de Lellis snc, 01100 Viterbo, Italy **12** Largo Brigata Cagliari 6, 13100 Vercelli, Italy **13** Dipartimento di Scienze e Tecnologie Ambientali, Biologiche e Farmaceutiche, Università della Campania Luigi Vanvitelli, Via A. Vivaldi 43, 81100 Caserta, Italy **14** Istituto di Bioscienze e Biorisorse, Consiglio Nazionale delle Ricerche (CNR-IBBR), Via G. Amendola 165/a, 70126 Bari, Italy **15** Sezione di Botanica Filippo Parlatore, Museo di Storia Naturale, Università di Firenze, Via G. La Pira 4, 50121 Firenze, Italy

Corresponding author: Gabriele Galasso (gabriele.galasso@comune.milano.it)

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Abstract

In this contribution, new data concerning the Italian distribution of alien vascular flora are presented. It includes new records and exclusions for Italy or for Italian administrative regions of taxa in the genera *Cedrus*, *Cenchrus*, *Citrus*, *Cyrtomium*, *Diospyros*, *Elaeagnus*, *Erigeron*, *Iris*, *Oenothera*, *Pavonia*, *Phytolacca*, *Styphnolobium*, and *Verbena*. Furthermore, a new combination in the genus *Amaranthus* is proposed.

Keywords

Floristic data, Italy, new combination, nomenclature

How to contribute

The text for the new records should be submitted electronically to Chiara Nepi (chiara.nepi@unifi.it). The corresponding specimen along with its scan or photograph has to be sent to FI Herbarium: Sezione di Botanica Filippo Parlatore del Museo di Storia Naturale, Via G. La Pira 4, 50121 Firenze (Italy). Those texts concerning nomenclatural novelties (typifications only for accepted names), status changes, exclusions, and confirmations should be submitted electronically to: Gabriele Galasso (gabriele.galasso@comune.milano.it). Each text should be within 2,000 characters (spaces included).

Floristic records

Amaranthus hybridus L. subsp. *caudatus* (L.) Iamónico & Galasso, comb. nov. (Amaranthaceae)
[urn:lsid:ipni.org:names:77167023-1](https://nomenclature.ipni.org/names/77167023-1)

≡ *Amaranthus caudatus* L., Sp. Pl. 2: 990. 1753 [1.V.1753].

The aggregate of *Amaranthus hybridus* L. includes the grain amaranths and forms a critical group from a taxonomical point of view. The evolutionary origin of grain taxa is still unclear, and two hypotheses were suggested, i.e., monophyletic and polyphyletic (e.g., Xu and Sun 2001, Iamónico 2015). A recent study by Stetter and Schmid (2017) showed that different and separated populations of wild *A. hybridus* subsp. *hybridus* appear to be the ancestor of the three cultivated grain species (i.e., *A. caudatus* L., *A. cruentus* L., and *A. hypochondriacus* L.); *A. hybridus* subsp. *quitensis* (Kunth) Costea & Carretero might be additionally involved in the origin of *A. caudatus*. On the contrary, the similar wild *A. powellii* S.Watson is related to *A. retroflexus* L. with which it forms a well separated clade. Accordingly, Stetter and Schmid (2017) strongly support a monophyletic status for these taxa. Since the subspecific rank is considered suitable for representing taxonomic relationships between a domesticated crop and its direct wild relative (Harlan and de Wet 1971) (see e.g., Bartolucci et al. 2017, Galasso et al. 2017), a new combination is proposed here for the grain crop *A. caudatus*.

D. Iamónico, G. Galasso

Cedrus atlantica (Endl.) G.Manetti ex Carrière (Pinaceae)

+ (CAS) **TOS**: Sesto Fiorentino (Firenze), Monte Morello in loc. Ceppeto, lungo il sentiero CAI 061 (WGS84: 43.85862°N; 11.25914°E), rimboschimento di conifere miste, 575 m, 11 March 2017, F. Roma-Marzio, L. Peruzzi (FI, PI, Herb. F. Roma-Marzio). – Casual alien species new for the flora of Toscana.

In the area of Monte Morello this species, as well as other conifers, has been frequently planted (Gestri and Peruzzi 2016). However, a spontaneous regeneration of *C. atlantica* was never reported before in Toscana (Roma-Marzio et al. 2016). Several small plants and plantlets, certainly originating from seeds, were found under mature planted trees.

F. Roma-Marzio, L. Peruzzi

Cenchrus incertus M.A.Curtis (Poaceae)

– **CAM.** – Alien species to be excluded from the flora of Campania.

Cenchrus incertus was recorded as new for the flora of Campania by Astolfi and Nazzaro (1993), based on specimens collected at the mouth of the Sele River in the Province of Salerno. After the revision of those specimens by Verloove and Sánchez Gullón (2012), the Sele population has been attributed to the closely related *C. longispinus* (Hack.) Fernald. Recently, *C. incertus* was also indicated by Stinca et al. (2013) for Sessa Aurunca at the mouth of the Garigliano River (Caserta Province) (PORUN). However, this *exsiccatum* was recently revised by one of us (AS) and identified as *C. longispinus*. Therefore, as already proposed by Del Guacchio and La Valva (2017), *C. incertus* is to be excluded from the flora of Campania.

A. Stinca, G. Chianese

Cenchrus longisetus M.C.Johnst. (Poaceae)

+ (CAS) **ABR:** Teramo (Teramo), bordo stradale lungo Via Po (WGS84: 42.665786°N; 13.720375°E), margine stradale, ca. 230 m, SE, 5 July 2017, N. Olivieri (FI). – Casual alien species new for the flora of Abruzzo.

This species occurs with some individuals along the edge of the paved road, at the border of an artificial urban lawn, occasionally mulled and subjected to anthropic disturbance, on a sandy, dry and shallow, silt soil. *Cenchrus longisetus* is cultivated as ornamental in a flowerbed nearby the opposite side of the road.

N. Olivieri

Citrus ×aurantium L. (Rutaceae)

= *C. ×sinensis* (L.) Osbeck (*C. maxima* (Burnm.) Merr. × *C. reticulata* Blanco)

+ (CAS) **ABR:** San Vito Chietino (Chieti), loc. Marina (WGS84: 42.305277°N; 14.447947°E), margine di coltivazione di agrumi parzialmente abbandonata, ca. 50 m, SE, 3 July 2017, N. Olivieri (FI). – Casual alien nothospecies new for the flora of Abruzzo.

A young individual of this hybrid grows at the margins of a cultivation of sweet oranges and olives in partial abandonment, along with young specimens of *Pittosporum tobira* (Thunb.) W.T.Aiton. The area is located on a hilly, fresh and partially shaded slope, on sandy soil. According to Mabberley (1999), sweet orange [*Citrus ×sinensis* (L.) Osbeck] is a heterotypic synonym of bitter orange (*C. ×aurantium*).

N. Olivieri

Cyrtomium falcatum (L.f.) C.Presl (Dryopteridaceae)

+ (NAT) **TAA**: Riva del Garda (Trento), nelle fessure della banchina del Lungolago Marinai d'Italia (WGS84: 45.883853°N; 10.841031°E), banchina in cemento, 65 m, 2 July 2017, F. Roma-Marzio, P. Liguori (FI, PI). – Naturalized alien species new for the flora of Trentino-Alto Adige.

The fern *Cyrtomium falcatum* is native to China, Japan, Korea, and Polynesia (Zhang and Barrington 2013). In Trentino-Alto Adige, Prosser (1995) reported the occurrence of the related *C. fortunei* J.Sm. that mainly differs from *C. falcatum* in the shape and thickness of lateral pinnae: lanceolate and papery in *C. fortunei*, ovate-lanceolate and leathery in *C. falcatum* (Zhang and Barrington 2013, Tison et al. 2014). About ten tufts or single fronds, originated from cultivated plants in the surrounding flowerbeds, were found in several places of the quay.

F. Roma-Marzio

Diospyros virginiana L. (Ebenaceae)

+ (NAT) **ITALIA (TOS)**: Isola d'Elba, Campo nell'Elba (Livorno), San Piero in Campo, tra il campo sportivo e le cave di granito (WGS84: 42.750440°N; 10.202823°E), 230 m, 10 June 2017, G. Frangini, G. Cortesi, B. Pierini, L. Peruzzi (FI). – Naturalized alien species new for the flora of Italy (Toscana).

The plants were identified by using the keys reported by Li et al. (1996) and Eckenwalder (2009). *Diospyros virginiana* is native to the eastern USA (Eckenwalder 2009) and it has been occasionally used as rootstock for *D. kaki* Thunb. (Cohen et al. 1991). This is possibly the reason for the original introduction of *D. virginiana* on the island of Elba. The observed populations are able to self-propagate and form small, dense, monospecific woods not only in the area cited above, but also in a nearby more south-western locality (WGS84: 42.747865°N; 10.200290°E), in Fetovaia (WGS84: 42.735374°N; 10.153356°E) and in Colle di Palombaia (WGS84: 42.738525°N; 10.208502°E).

G. Frangini, G. Cortesi, B. Pierini, L. Peruzzi

Elaeagnus* × *ebbingei* Door. (Elaeagnaceae)(E. macrophylla* Thunb. × *E. pungens* Thunb.)

+ (CAS) **CAM**: Pozzuoli (Napoli), presso il porto (WGS84: 40.829347°N; 14.114121°E), sabbie marittime al margine di una formazione ad *Arundo donax*, 1 m, 20 April 2017, A. Stinca (FI, PORUN). – Casual alien nothospecies new for the flora of Campania.

This hybrid was recorded for the first time in Italy by Gallo (2010) in Piemonte and more recently in Abruzzo (Galasso et al. 2017). The individuals observed in Campania have spread by seeds of cultivated plants probably carried by the sea.

A. Stinca

***Erigeron karvinskianus* DC. (Asteraceae)**

+ (CAS) **PUG**: Bari (Bari), zona sudorientale della città, nel centro del quartiere Carbonara (WGS84: 41.073501°N; 16.873610°E), lungo la parete ombreggiata di una casa, 54 m, 24 April 2017, V. Tomaselli, G. Veronico (FI). – Casual alien species new for the flora of Puglia.

It tends to spread out very rapidly, growing usually on walls or rocky places.

G. Veronico, V. Tomaselli

***Iris albicans* Lange (Iridaceae)**

+ (NAT) **MAR**: Fabriano (Ancona), lungo la SS76 in loc. C.se le Balzette, circa 3 km a SW di Fabriano (WGS84: 43.31752°N; 12.87186°E), prato a bordo strada, 404 m, 16 April 2017, F. Roma-Marzio, P. Liguori (FI). – Naturalized alien species new for the flora of Marche.

Several shoots were observed for about one kilometre along the edge of the road.

F. Roma-Marzio

***Oenothera adriatica* Soldano (Onagraceae)**

+ (CAS) **EMR**: Ravenna (Ravenna), Marina di Ravenna, zona industriale (WGS84: 44.443633°N; 12.226668°E), margine stradale, 1 m, no exp., 24 June 2015, G. Bonari (FI). – Casual alien species new for the flora of Emilia-Romagna.

In the industrial area, a few individuals grow scattered in the cracks of the sidewalk.

G. Bonari, A. Soldano

***Pavonia hastata* Cav. (Malvaceae)**

+ (CAS) **ITALIA (LAZ)**: Bracciano (Roma), Vigna di Valle, Museo Storico dell'Aeronautica Militare presso l'Aeroporto di Vigna di Valle, sulla sponda del Lago di Bracciano (WGS84: 42.085353°N; 12.218744°E), sponda lacustre, 158 m, 28 June 2017, S. Buono (FI). – Casual alien species new for the flora of Italy (Lazio).

Pavonia Cav. is a genus of more than 200 species from the tropics and subtropics and a member of the tribe Malvaceae C.Presl, which is characterized by the number of styles corresponding to twice the number of carpels (Bird 1997, Fryxell 1999). *Pavonia hastata* is native to tropical South America where it occurs in woodlands and open forests in both damp and dry habitats; it is naturalized in Australia (Australian Native Plants Society 2017), southern USA (Bird 1997, Fryxell and Hill 2015, Plants Database 2017), Africa (Ulbrich 1920–1921, Fryxell 1999) and Portugal (Domingues de Almeida and Freitas 2012). This species usually forms a spreading shrub to about 1 m in height; leaf blades are ovate-triangular to hastate-oblong; inflorescences are axillary with solitary flowers, which are typically *Hibiscus*-like in shape, light pink or white with a red throat, appearing in summer and autumn; fruits are schizocarps with five mericarps (Fryxell 1999, Fryxell and Hill 2015, Australian Native Plants Society 2017). *P. hastata* is commonly cultivated as an ornamental plant (Bird 1997). In the location reported here, the species grows on sandy soil together with *Abutilon theophrasti* Medik., *Ludwigia peploides* (Kunth) P.H.Raven subsp. *montevidensis* (Spreng.) P.H.Raven, *Portulaca oleracea* L. aggr., *Solanum nigrum* L. and others. To date, a single individual regularly develops flowers and fruits. It was not observed, so far, in other locations along the lakeshore.

S. Buono, A. Scoppola

***Phytolacca dioica* L. (Phytolaccaceae)**

+ (CAS) **TOS**: Isola d'Elba, Rio nell'Elba (Livorno), parte interna del Golfo di Nisporto (WGS84: 42.823821°N; 10.381158°E), 5 m, 10 June 2017, G. Frangini, B. Pierini (FI). – Casual alien species new for the flora of Toscana.

Five old trees occur in the site, showing abundant vegetative propagation.

G. Frangini, B. Pierini

***Styphnolobium japonicum* (L.) Schott (Fabaceae)**

+ (CAS) **MOL**: Termoli (Campobasso), presso Via Madonna delle Grazie (WGS84: 41.998469°N; 14.989163°E), margine stradale, ca. 36 m, 15 July 2017, N. Olivieri (FI). – Casual alien species new for the flora of Molise.

Some young individuals grow along the roadside, in the narrow space between a wall and a kerb, as well as at the edge of a parking lot where some trees of the species were planted.

N. Olivieri

Verbena bonariensis L. (Verbenaceae)

+ (CAS) **LAZ**: Roma (Roma), pressi della stazione ferroviaria Tiburtina (WGS84: 41.893872°N; 12.530000°E), bordi di aiuole, ca. 20 m, 12 July 2017, *N. Olivieri* (FI).
– Casual alien species new for the flora of Lazio.

Some individuals of this species grow at the edge of some irrigated flowerbeds. The plants originated from seeds produced by some individuals planted in neighbouring flowerbeds.

N. Olivieri

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